

IN THE CLAIMS:

Please amend the claims as follows:

1 to 48. (Cancelled)

49. (Currently Amended) An ink-jet recording process, comprising ~~the~~ a step of ejecting ~~the~~ a fluorescent ink from an orifice in response to recording signals, wherein ~~said ink shows fluorescence intensity by ultraviolet light, and wherein said~~ the ink comprises:

(i) first and second organic compounds which are incompatible with each other;

(ii) at least one of a compound exhibiting fluorescence properties and a coloring material exhibiting fluorescence properties; and

(iii) a liquid medium dissolving or dispersing the components (i) and (ii) therein,

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

50. (Currently Amended) The ink-jet recording process according to Claim 49, wherein the step comprises a sub-step of applying thermal energy to the ink to eject the ink from ~~an~~ the orifice.

51. (Original) A recorded article obtained by the ink-jet recording process according to Claim 50, wherein the fluorescence intensity of a recorded portion formed on

wood-free paper has a proportional relationship to the water content in the wood-free paper.

52. (Original) The recorded article according to Claim 51, which has a maximum wavelength for excitation and a fluorescence maximum wavelength, and the maximum wavelength for excitation is shorter than the fluorescence maximum wavelength.

53. (Currently Amended) A recorded article having a colored portion exhibiting fluorescence on a recording medium, wherein the colored portion contains at least one of a compound exhibiting fluorescence and a coloring material exhibiting fluorescence and has an interface at which incident light on the colored portion is reflected, the interface being between the outermost surface ~~thereof~~ of the colored portion and the surface of the recording medium at the colored portion, and wherein the interface is formed by phase separation of components of a fluorescent ink.

54. (Currently Amended) A recording unit comprising an ink container containing a fluorescent ink and a head portion for ejecting the ink, ~~wherein said ink shows fluorescence intensity by ultraviolet light, said~~ the ink comprising:

- (i) first and second organic compounds which are incompatible with each other;
- (ii) at least one of a compound exhibiting fluorescence properties and a coloring material exhibiting fluorescence properties; and
- (iii) a liquid medium dissolving or dispersing the components (i) and (ii) therein,

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

55. (Original) The recording unit according to Claim 54, wherein the head portion has a construction that thermal energy is applied to the ink to eject the ink.

56. (Original) The recording unit according to Claim 54, wherein the ink container comprises a polyolefin.

57. (Original) The recording unit according to Claim 54, wherein the ink container has an ink holding member therein.

58. (Original) The recording unit according to Claim 57, wherein the ink holding member comprises at least one selected from the group consisting of polyurethane, cellulose, polyvinyl acetate and polyolefin.

59. (Original) The recording unit according to Claim 57, wherein the ink holding member comprises a polymer formed by a condensation or polymerization reaction of organic compound(s).

60. (Original) The recording unit according to Claim 57, wherein the ink holding member comprises a porous material.

61. (Original) The recording unit according to Claim 60, wherein the ink holding member has a surface being in contact with the ink container.

62. (Original) The recording unit according to Claim 57, wherein the ink holding member has a multi-layer structure.

63. (Original) The recording unit according to Claim 62, wherein the direction of the multi-layer arrangement of the multi-layer structure is aligned in an ink discharging direction of the ink container.

64. (Original) The recording unit according to Claim 62, wherein the ink holding member has a contact surface with the ink container.

65. (Original) The recording unit according to Claim 57, wherein the ink holding member is composed of fiber flocculate.

66. (Original) The recording unit according to Claim 65, wherein the fiber flocculate is aligned in an ink discharging direction of the ink container.

67. (Original) The recording unit according to Claim 66, wherein the ink holding member has a contact surface with the ink container.

68. (Currently Amended) An ink cartridge comprising an ink container containing ink, ~~wherein said ink shows fluorescence intensity by ultraviolet light, said~~  
the ink comprising:

(i) first and second organic compounds which are incompatible with each other;

(ii) at least one of a compound exhibiting fluorescence properties and a coloring material exhibiting fluorescence properties; and

(iii) a liquid medium dissolving or dispersing the components (i) and (ii) therein,

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

69. (Original) The ink cartridge according to Claim 68, wherein the ink container comprises a polyolefin.

70. (Original) The ink cartridge according to Claim 68, wherein the ink container has an ink holding member therein.

71. (Original) The ink cartridge according to Claim 70, wherein the ink holding member comprises at least one selected from the group consisting of polyurethane, cellulose, polyvinyl acetate and polyolefin.

72. (Original) The ink cartridge according to Claim 70, wherein the ink holding member is composed of a polymer formed by a condensation or polymerization reaction of organic compound(s).

73. (Original) The ink cartridge according to Claim 70, wherein the ink holding member has a porous structure.

74. (Original) The ink cartridge according to Claim 73, wherein the ink holding member has a contact surface with the ink container.

75. (Original) The ink cartridge according to Claim 70, wherein the ink holding member has a multi-layer structure.

76. (Original) The ink cartridge according to Claim 75, wherein the direction of the multi-layer arrangement of the multi-layer structure is aligned in an ink discharging direction of the ink container.

77. (Original) The ink cartridge according to Claim 76, wherein the ink holding member has a contact surface with the ink container.

78. (Original) The ink cartridge according to Claim 70, wherein the ink holding member is composed of fiber flocculate.

79. (Original) The ink cartridge according to Claim 78, wherein the fiber flocculate is aligned in an ink discharging direction of the ink container.

80. (Original) The ink cartridge according to Claim 79, wherein the ink holding member has a contact surface with the ink container.

81. (Currently Amended) An ink-jet recording apparatus comprising an ink container containing fluorescent ink and a head portion for ejecting the ink, ~~wherein said ink shows fluorescence intensity by ultraviolet light, said~~ the ink comprising:

(i) first and second organic compounds which are incompatible with each other;

(ii) at least one of a compound exhibiting fluorescence properties and a coloring material exhibiting fluorescence properties; and

(iii) a liquid medium dissolving or dispersing the components (i) and (ii) therein,

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

82. (Currently Amended) A method of enhancing fluorescence of a fluorescent colored portion of a recorded article comprising a recording medium and the colored portion provided thereon, wherein the colored portion is formed by an ink-jet recording process comprising the step of applying ~~an~~ a fluorescent ink to ~~a~~ the recording medium by an ink-jet system, ~~wherein said ink shows fluorescence intensity by ultraviolet light, and an~~ the ink comprising:

(i) first and second organic compounds which are incompatible with each other;

(ii) at least one of a compound exhibiting fluorescence and a coloring material exhibiting fluorescence; and

(iii) a liquid medium dissolving or dispersing the components (i) and (ii) therein, ~~is used as said ink~~

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

83. (Currently Amended) A method of enhancing fluorescence of a fluorescent colored portion of a recorded article comprising a recording medium and the colored portion provided thereon, which comprises providing ~~a reflecting~~ an interface for ~~incident reflecting light incident~~ on the colored portion from the outside, the interface being between the outermost surface of the colored portion and the surface of the recording medium at the colored portion, wherein the interface is formed by phase separation of components of a fluorescent ink.

84. (Currently Amended) A method of elongating the life time of fluorescence of a fluorescent colored portion of a recorded article comprising a recording medium and the colored portion provided thereon, wherein the colored portion is formed by an ink-jet recording process comprising the step of applying ~~an a fluorescent ink to a the~~ recording medium by an ink-jet system, ~~wherein said ink shows fluorescence intensity by ultraviolet light, and an the~~ ink comprising:

(i) first and second organic compounds which are incompatible with each other;

(ii) a compound having a vapor pressure not lower than that of ~~diethyleneglycol~~; diethyleneglycol;

(iii) at least one of a compound exhibiting fluorescence properties and a coloring material exhibiting fluorescence properties; and

(iv) a liquid medium dissolving or dispersing the components (i), (ii) and (iii) therein, ~~is used as said ink~~

wherein the first and second organic compounds dissolved or dispersed in the liquid medium cause liquid-liquid separation upon a decrease in the amount of the liquid medium.

85. (Previously Presented) The ink-jet recording process according to Claim 49, wherein the coloring material is C.I. Acid Red 52, and the content of the coloring material is at most 0.4% by weight based on the total weight of the ink.

86. (Previously Presented) The ink-jet recording process according to Claim 54, wherein the coloring material is C.I. Acid Red 52, and the content of the coloring material is at most 0.4% by weight based on the total weight of the ink.

87. (Previously Presented) The ink-jet recording process according to Claim 68, wherein the coloring material is C.I. Acid Red 52, and the content of the coloring material is at most 0.4% by weight based on the total weight of the ink.